

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte ROBERT ALLAN UNGER

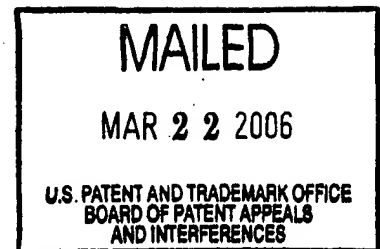
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Appeal No. 2006-0303  
Application 09/711,325<sup>1</sup>

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ON BRIEF

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Before BARRETT, DIXON, and NAPPI, Administrative Patent Judges.  
BARRETT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134(a) from the final rejection of claims 3-8, 11-16, 18, 19, and 21-29. Claims 1, 2, 9, 10, 17, and 20 have been canceled.

We reverse.

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<sup>1</sup> Application for patent filed November 13, 2000, entitled "Method and System for Minimizing the Time Required to Acquire a Control Channel of a Cable Television Signal with a Set-Top Unit."

BACKGROUND

The invention relates to a method and system for using a plurality of tuners to acquire the control channel required to allow a set-top unit to operate within a cable system.

Claim 23 is reproduced below.

23. A set-top unit for connection to a cable television system comprising:

- a control channel tuner;
- at least one programming tuner; and
- a processor for controlling both said tuners;

wherein said processor is configured to concurrently control both said control channel tuner and said at least one programming tuner to scan a frequency band to locate a control channel.

THE REFERENCES

The examiner relies on the following references:

Heberle et al.	5,220,580	June 15, 1993
Chiu et al. (Chiu)	5,883,901	March 16, 1999
Jerding et al. (Jerding)	US 2002/0104097	Pub. August 1, 2002 (effective filing date May 4, 2000)
Bahraini (based on provisional application filed December 14, 1999)	US 2002/0116706	Pub. August 22, 2002
Robbins et al. (Robbins)	6,807,676	October 19, 2004 (effective filing date March 21, 1996)

THE REJECTIONS

Claims 3, 4, 11, 12, 18, and 21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Jerding and Bahraini.

Claims 5-8, 13-16, 19, and 22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Jerding and Bahraini, with Heberle cited to support a finding of Official Notice.

Claims 23, 25, 26, and 28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Jerding and Bahraini, with Robbins cited to support a finding of Official Notice.

Claims 27 and 29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Jerding and Bahraini, with Robbins and Heberle cited to support a finding of Official Notice.

Claim 24 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Jerding, Bahraini, and Chiu, with Robbins cited to support a finding of Official Notice. The statement of the final rejection using Chiu did not include claim 24, but since claim 24 was included in the discussion (final rejection, page 12), we assume the omission was inadvertent. Chiu is not listed in the references in the answer.

We refer to the final rejection (pages referred to as "FR\_\_"), the advisory action (pages referred to as "AA\_\_"), and the examiner's answer (pages referred to as "EA\_\_") for a statement of the examiner's rejection, and to the appeal brief

(pages referred to as "Br\_\_") for a statement of appellant's arguments thereagainst.

#### DISCUSSION

We follow the order of addressing claims in the brief, which is based on the order in the advisory action.

As a matter of procedure, the rejections in the final rejection relied upon Official Notice. Robbins and Heberle were cited in the advisory action to support the finding of Official Notice although the examiner notes that appellant did not require citation of a reference to support the Official Notice. Although the statements of the rejection in the examiner's answer refer to Robbins and Heberle as part of the rejection, it is noted that these references can only be relied upon to the extent they support the findings of Official Notice, and not for everything taught therein; otherwise, the rejection would constitute a new ground of rejection.

#### Claims 23-27

Claim 23 requires, in relevant part, that "said processor is configured to concurrently control both said control channel tuner and said at least one programming tuner to scan a frequency band to locate a control channel."

Jerding discloses a set-top box having a tuner system 25 for tuning to a particular channel and for sending and receiving data

from the headend 11 (§ 0022), which the examiner finds to be two tuners: a control channel tuner and a programming tuner.

Bahraini discloses using a single tuner to scan for an out-of-band or an in-band control channel (§ 0010). The examiner admits that "Jerding fails to show that the programming tuner scans frequencies to locate a control channel" (EA9) and that "neither [Jerding nor Bahraini] teaches or suggests a set-top unit that includes and concurrently uses two tuners to scan a frequency band to locate a control channel" (AA2). The advisory action states (AA2):

Official Notice is given that it is [sic, was] well known and expected in the art to control two tuners at the same time. This allows the system to perform multiple tasks without the need to wait for instructions to be completed by one of the tuners. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Jerding and Bahraini with the ability to control both of the tuners at the same time so that the system could access both tuners independently with individual instruction sets.

Appellant argues that even if the finding of Official Notice were true, this does not mean that it was well known in the art to control two tuners concurrently to locate a control channel as claimed (Br6). The appellant is clearly correct. A processor may control two programming tuners concurrently, such as to provide a picture-in-picture (as taught, for example, at page 9 of the specification), but this does not suggest using two tuners to locate a control channel.

The examiner cites column 12, lines 35-45, of Robbins in support of the Official Notice and finds that "Robbins clearly shows using two tuners concurrently" (AA2).

Appellant argues that Robbins teaches using a video tuner 120 and a digital audio tuner 202 simultaneously, where the audio tuner 202 is in a separate module (Br6-7). It is argued that the audio tuner 202 would not be capable of locating or tuning a control channel in a cable television system and, thus, Robbins cannot support the position that it would have been obvious to concurrently use two similar tuners as claimed (Br7). It is argued that Robbins does not teach or suggest concurrently using two similar tuners in a set-top unit to locate a control channel as claimed (Br7).

The examiner responds by discussing how Robbins controls two tuners and concludes that "[s]ince[] Robbins shows a variety of methods of receiving in band and out of band data simultaneously between two tuners, there is ample motivation and suggestion that these techniques are frequently used in the art" (EA15).

Initially, we note that the examiner can not rely on Robbins for anything more than what is stated in the Official Notice, i.e., the examiner cannot bring in the full teachings of Robbins in the guise that it merely supports the finding of Official Notice. If the examiner intends to rely on Robbins for anything more than what is stated in the Official Notice, the rejection

must be designated a new ground of rejection. We assume Robbins is limited to supporting the Official Notice.

We agree with appellant regarding the content of Robbins. Robbins does not suggest concurrently using two tuners in a set-top unit. The example of a processor concurrently controlling two programming tuners to display picture-in-picture is a better example of concurrently controlling two tuners than Robbins. The examiner's rejection does not come to grips with the limitation of controlling two tuners for the specific function of locating a control channel: a general teaching of controlling two tuners for some other purpose (e.g., to use two programming tuners to tune two channels, where each tuner is used for its intended purpose of tuning a programming channel) does not teach or suggest controlling the tuners to locate a control channel, which has been done in the prior art using a single channel tuner. Since appellant's invention is to using plural tuners to locate a control channel, more than just a general teaching of controlling two tuners for any purpose is required. The combination of Jerding, Bahraini, and Robbins does not suggest controlling two tuners to locate a control channel. The rejection of claims 23 and 25-27 is reversed.

The examiner applies Chiu to teach storing the last known frequency in memory as recited in claim 24. The examiner has not

applied Chiu to cure the deficiencies in the rejection of claim 23. The rejection of claim 24 is reversed.

Claims 28 and 29

Claim 28 recites, in part, that "said processor is configured to concurrently control said programming tuners to scan a frequency band to locate a control channel." This claim recites controlling two programming tuners, instead of a control channel tuner and a programming tuner as in claim 23.

Appellant argues that the combination of Jerding, Bahraini, and Robbins fails to teach using two or more tuners concurrently to scan a frequency band to locate a control channel, as discussed in connection with claim 23 (Br8). We agree with this argument for the reasons discussed, supra. The rejection of claims 28 and 29 is reversed.

Claims 6-8, 14-16, 19, and 22

Claim 6 recites, in part, that "said processor divides said frequency band among said control channel tuner and said at least one programming tuner, and controls each said tuner to search a different portion of said frequency band for said control channel." Claims 14, 19, and 22 recite similar subject matter. These claims recite that two tuners, a control channel tuner and a programming tuner, are used together to locate a control



channel. The frequency band is divided among the two tuners so that the search can be completed more quickly.

The examiner admits that "[b]oth Jerding and Bahraini fail to show splitting up the frequency scanning between two tuners" (FR6), but takes Official Notice that "it is [sic, was] well known and expected in the art to split up a task between plural, but similar, components to facilitate processing and speed up computational calculations" (FR6).

Appellant argues that the combination of references does not teach or suggest using multiple similar components to conduct a single task, e.g., searching for a control channel (Br9) and even if the Official Notice is given credit, the prior art still does not teach or suggest a processor that divides a frequency band among two similar tuners in search for a control channel (Br9).

We agree with appellant that the Official Notice does not go to the specific limitation at issue of dividing a frequency band among two similar tuners in search for a control channel. Thus, the Official Notice is not persuasive of obviousness.

In the advisory action, the examiner cites Heberle, column 5, lines 20-55, in support of the Official Notice finding that Heberle shows dividing a frequency spectrum between components to facilitate a faster search (AA2).

Again, we note that the examiner can not rely on Heberle for anything more than what is stated in the Official Notice, i.e.,

the examiner can not bring in the full teachings of another reference in the guise that it merely supports the finding of Official Notice. If the examiner intends to rely on Heberle for anything more than what is stated in the Official Notice, the rejection must be designated a new ground of rejection. We assume Heberle is limited to supporting the Official Notice.

Appellant responds that Heberle does not teach or suggest dividing up a frequency band among two tuners in the search for a control channel, so even if Heberle were combined with Jerding, Bahraini, and Robbins, the combination still would not teach or suggest dividing a frequency band among multiple tuners that are concurrently controlled to search for a control channel in that frequency band (Br9).

The examiner responds that Heberle is not used to show any of the tuners or processors, but is only relied on to show dividing the search frequency between two spectrums to facilitate a faster search or scan (EA16).

We agree with appellant that Heberle does not teach or suggest dividing a frequency band among two similar tuners in search for a control channel. Heberle discloses dividing up a spread-spectrum signal into approximately equal lengths of time (col. 5, lines 43-46), not dividing up a frequency band among two tuners in search for a control signal. While Heberle may support the finding of Official Notice that splitting up a task between

plural components to facilitate processing and speed up computational calculations was known, this general teaching does not disclose or suggest the specific task of splitting up the frequency range to search for a control signal. The rejection of claims 6-8, 14-16, 19, and 22 is reversed.

Claims 3-5, 11-13, 18, and 21

Claim 3 recites, in part, "said processor controls said at least one programming tuner to tune frequencies in said frequency band and identify frequencies carrying an active signal; and wherein said processor controls said control channel tuner to tune said frequencies carrying an active signal to locate said control channel." Claims 11, 18, and 21 recite similar subject matter. These claims recite that two tuners, a control channel tuner and a programming tuner, are used together to locate a control channel. One tuner is used to search for frequencies carrying an active signal, while the second tuner is used to tune those frequencies with active signals to determine which is a control signal.

The examiner finds that Jerding (at ¶ 0022) teaches that the processor controls the programming tuner to tune to frequencies carrying an active signal and controls the control tuner to tune to frequencies carrying an active signal (AA2). The examiner finds that the only limitation not shown by Jerding is the scanning process of finding the active frequencies, but Bahraini

teaches scanning for an active frequency (AA2). Appellant argues that nowhere does the combination of Jerding and Bahraini teach or suggest using two tuners concurrently, let alone using one to find active signals and the second to follow up to determine if any of the active signals are control channels (Br10).


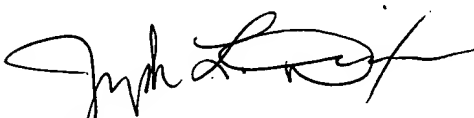

The rejection does not address the specifics of the claim language. There is no disagreement that it was known for the control channel tuner to tune to an active control channel or for programming tuners to tune to an active programming channel (of course, programming tuners do not have to search for active channels because channel frequencies are pre-assigned and known to the tuner). However, there is no suggestion whatsoever in Jerding or Bahraini for the programming tuner to search and identify active signals which are screened by the control channel tuner to identify the control channel. The rejection of claims 3-5, 11-13, 18, and 21 is reversed.

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CONCLUSION

The rejections of claims 3-8, 11-16, 18, 19, and 21-29 are reversed.

REVERSED

  
LEE E. BARRETT )  
Administrative Patent Judge )  
)  
  
JOSEPH L. DIXON )  
Administrative Patent Judge )  
)  
  
ROBERT E. NAPPI )  
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Application 09/711,325

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